

REMARKS/ARGUMENTS

This Amendment is being filed in response to the Office Action dated September 29, 2009. Reconsideration and allowance of the application in view of the amendments made above and the remarks to follow are respectfully requested.

Claims 1-14, 18 and 21-22 are pending in the Application. By means of the present amendment, the claims are amended including for better conformance to U.S. practice as well as to correct certain informalities noted upon review of the claims. By these amendments, the claims are not amended to address issues of patentability and Applicants respectfully reserve all rights under the Doctrine of Equivalents. Applicants furthermore reserve the right to reintroduce subject matter deleted herein at a later time during the prosecution of this application or continuing applications.

In the Office Action, claim 1 is rejected under 35 U.S.C. §112, first paragraph as allegedly failing to comply with the written description requirement and is rejected under 35 U.S.C. §112, second paragraph as allegedly being indefinite. Each of these rejections stems from the language stating that "the display device having a non-zero voltage ..." (see, Office Action, pages 2

and 3.) The rejections of claim 1 under 35 U.S.C. §112, first paragraph and under 35 U.S.C. §112, second paragraph are respectfully traversed.

It is respectfully submitted that the application provides ample support for the language recited in the claims. For example, FIG. 4 clearly provides for "four short pulses--two negative and two positive pulses are used, the average DC voltage being equal to the gray level voltage ($V_{sub.1}$, $V_{sub.2}$, $V_{sub.4}$).\" (E.g., see, present application, FIG. 4 and page 4, lines 28-31.) A simple inspection of FIG. 4 shows that the fixed voltage 32 is a non-zero voltage (e.g., a voltage not equal to zero volts) and the asymmetry of the pre-pulses 31 about zero volts shown in FIG. 4 is clear to a person of ordinary skill in the art that "a fixed voltage [is applied] to the display device having a non-zero voltage associated with an electro-optical state of the picture element to be set" as previously recited in the claims. While it is true that in some embodiments described in the specification that "the average DC voltage [of the pre-pulses] being equal to zero" (e.g., see, present application, page 4, lines 25-27), this is clearly presented in the application as an example and is not definitive of the scope of the invention described in the present application.

What is significant in the present application and is not taught, disclosed or suggested by the cited prior art including U.S. Patent No. 4,041,481 to Sato that is cited for showing this feature as discussed in more detail below, is that "the variable voltages comprise a set of alternating voltages having one of a mean voltage, a root mean square voltage and an average voltage, substantially equal to the non-zero [fixed] voltage."

The Office Action has taken a position that it is not clear what a "non-zero voltage" is (see, Office Action, page 3. This assertion is directly refuted by the Office Action itself which points to Sato as showing a non-zero voltage (-V and 3V), which are non-zero voltages as readily appreciated by a person of ordinary skill in the art, as the Examiner also clearly appreciates.

However, in the interest of advancing consideration and allowance of the claims, the Applicants have elected to amend claim 1 to clarify that which is recited in the claims and to address the concerns raised in the Office Action.

Particularly, claim 1 is amended to recite (emphasis added) "a fixed voltage to the display device associated with an electro-optical state of the picture element to be set, wherein the variable voltages are selected to comprise a set of alternating

voltages having one of a mean voltage, a root mean square voltage and an average voltage, substantially equal to the fixed voltage that is associated with the electro-optical state of the picture element to be set, wherein the fixed voltage is a voltage that is not equal to zero volts." As discussed above, support for a fixed voltage that is not equal to zero volts is provided throughout the figures and specification, such as discussed above regarding FIG. 4 of the present application.

It is respectfully submitted that claim 1 is supported by the written description and is definite. Accordingly, it is respectfully requested that the rejections under 35 U.S.C. §112, first and second paragraphs be withdrawn.

In the Office Action, claim 1 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 7,359,108. The Examiner indicated that a terminal disclaimer may be used to overcome this rejection. This rejection is respectfully traversed, particularly in view of the present amendments to the claims.

It is respectfully pointed out that the Office Action in maintaining the double patenting rejection makes no efforts to

update the claim chart provided on pages 5 and 6 of the Office Action to address the currently recited limitations of the claims. It is further respectfully submitted that U.S. Patent No. 7,359,108 does not disclose or suggest (illustrative emphasis added) "a fixed voltage to the display device associated with an electro-optical state of the picture element to be set, wherein the variable voltages are selected to comprise a set of alternating voltages having one of a mean voltage, a root mean square voltage and an average voltage, substantially equal to the fixed voltage that is associated with the electro-optical state of the picture element to be set, wherein the fixed voltage is a voltage that is not equal to zero volts as recited in the claims. Accordingly, withdrawal of the double patenting rejection is respectfully requested or a statement showing wherein U.S. Patent No. 7,359,108 shows these elements of the claims is respectfully requested so that the position forwarded in the Office Action may be evaluated in light of this additional information. However, in light of this additional information (assuming it is subsequently provided), it is respectfully submitted that Applicants will consider filing a terminal disclaimer, if necessary in view of any allowable claims,

upon indication that the present application is otherwise allowable or includes allowable claims.

In the Office Action, claims 1-3, 18 and 21-22 are rejected under 35 U.S.C. §103(a) over U.S. Patent No. 6,262,833 to Loxley ("Loxley") in view of U.S. Patent No. 4,041,481 to Sato ("Sato") in further view of U.S. Patent Publication No. 2004/0231987 to Sterling ("Sterling"). These rejections are respectfully traversed. It is respectfully submitted that claims 1-14, 18 and 21-22 are allowable over Loxley in view of Sato in further view of Sterling for at least the following reasons.

It is undisputed that Loxley and Sterling fail to teach, disclose or suggest "applying a fixed voltage to the display device having a non-zero voltage associated with an electro-optical state of the picture element to be set, wherein the variable voltages comprise a set of alternating voltages having one of a mean voltage, a root mean square voltage and an average voltage, substantially equal to the non-zero voltage" as for example, previously recited in claim 1 (see, Office Action, page 7, regarding claim 1).

While Sato is relied on for showing this feature of the claims, it is respectfully submitted that reliance on Sato is misplaced.

The variable voltages of Sato applied during a time period T_E are cited for showing "the variable voltages comprise a set of alternating voltages having one of a mean voltage, a root mean square voltage and an average voltage (i.e. erase pulses during T_E , Col. 7, Ln. 19-21, FIGs. 7G-7I), substantially equal to the non-zero voltage". However, it is respectfully submitted that a simple inspection of Sato, FIGs. 7G-7I makes clear that the variable voltages are applied symmetrically about zero volts and therefore do not provide a set of alternating voltages having one of a mean voltage, a root mean square voltage and an average voltage substantially equal to the non-zero voltage applied by Sato during the time period T_E as alleged in the Office Action.

Further, nowhere within the four corners of Sato, including FIGs. 7G-7I, Col. 7, lines 19-21 and Col. 7, lines 40-58 cited in the Office Action, is it disclosed or suggested that the variable voltages of Sato are supplied in such a way that they have one of a mean voltage, a root mean square voltage and an average voltage substantially equal to the fixed voltage that is associated with

the electro-optical state of the picture element to be set, wherein the fixed voltage is a voltage that is not equal to zero volts.

As clear from Sato, the variable voltages during the T_E erase period are variable voltages centered around zero volts that are applied to erase the electrophoretic display of Sato as is known in the art of electrophoretic displays. Accordingly, it is clear that Sato does not show the variable voltages of Sato supplied in such a way that they have one of a mean voltage, a root mean square voltage and an average voltage that is substantially equal to the fixed voltage (a voltage that is not equal to zero volts) associated with the electro-optical state of the picture element to be set.

It is respectfully submitted that the display device of claim 1 is not anticipated or made obvious by the teachings of Loxley in view of Sato in further view of Sterling. For example, Loxley in view of Sato in further view of Sterling does not teach, disclose or suggest, a display device that amongst other patentable elements, comprises (illustrative emphasis added) "said driving means providing during selection of a picture element variable voltages to said picture element prior to applying a fixed voltage to the display device associated with an electro-optical state of

the picture element to be set, wherein the variable voltages are selected to comprise a set of alternating voltages having one of a mean voltage, a root mean square voltage and an average voltage, substantially equal to the fixed voltage that is associated with the electro-optical state of the picture element to be set, wherein the fixed voltage is a voltage that is not equal to zero volts" as recited in claim 1.

It is admitted by the Office Action that both Loxley and Sterling fail to teach, disclose or suggest this feature and as shown above, Sato clearly is also deficient in any such showing.

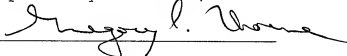
Based on the foregoing, the Applicants respectfully submit that independent claim 1 is patentable over Loxley in view of Sato in further view of Sterling and notice to this effect is earnestly solicited. Claims 2-14, 18 and 21-22 respectively depend from claim 1 and accordingly are allowable for at least this reason as well as for the separately patentable elements contained in each of the claims. Accordingly, separate consideration of each of the dependent claims is respectfully requested.

In addition, Applicants deny any statement, position or averment of the Examiner that is not specifically addressed by the foregoing argument and response. Any rejections and/or points of

argument not addressed would appear to be moot in view of the presented remarks. However, the Applicants reserve the right to submit further arguments in support of the above stated position, should that become necessary. No arguments are waived and none of the Examiner's statements are conceded.

Applicants have made a diligent and sincere effort to place this application in condition for immediate allowance and notice to this effect is earnestly solicited.

Respectfully submitted,

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